

LIGHTWEIGHT 155MM HOWITZER (LW155)

DESCRIPTION

The Lightweight 155mm Howitzer (LW155) is a joint Marine Corps/Army program to develop, produce and field a towed 155mm howitzer that provides increased mobility, survivability, deployability, and sustainability in expeditionary operations throughout the world. The LW155, designated the M777, is a direct and general support artillery system which is replacing the M198 155mm Medium Towed Howitzer in both Services. It has incorporated innovative design technologies to overcome deficiencies inherent in the current M198 howitzer. The LW155 is the first ground combat system whose major structures are made of high strength titanium alloy and the system makes extensive use of hydraulics to operate the breech, load tray, recoil and wheel arms. The combination of titanium structures and the use of hydraulic systems resulted in a significant weight savings over the M198 system (>7000 lbs.). Compared to the M198, the M777 emplaces three-times faster and displaces four-times faster. It traverses 32 percent more terrain worldwide and is 70 percent more survivable than the M198.

The M777A2 is an upgrade to the basic weapon that adds a digital fire-control system using a Global Positioning System, an Inertial Navigation Unit and a Vehicle Motion Sensor to accurately locate and orient the weapon to deliver greater accuracy, responsiveness and reliability. The system also integrates radios for voice and digital communications and a Chief of Section Display that is decoupled and

mounted into the cab of the prime mover for use as a navigation aid. The M777 fires unassisted projectiles to a range of 15 miles and assisted projectiles to 19 miles, but the addition of the digital fire control system enables the weapon to program and fire the Excalibur precision-guided munition to ranges in excess of 25 miles with better than 10-meter Circular Error Probable (CEP) accuracy.

OPERATIONAL IMPACT

The LW 155(M777) is currently in-service with the USMC and U.S. Army and has been deployed to Operation Iraqi Freedom/Operation Enduring Freedom. The Canadian Army purchased the base M777 under a Foreign Military Sale (FMS) contract and is currently using the system in Afghanistan.

PROGRAM STATUS

The LW 155 program entered full-rate production in 2005. The Marine Corps is procuring 405 systems and the Army is buying 366.

Procurement

Profile:	FY2008	FY2009
Quantity:	USMC=136	ARMY=280

Developer/Manufacturer:

BAE Systems, Barrow in Furness, UK

General Dynamics, ATP, Burlington, VT;
Wegmann

USA, Lynchburg, VA; TSLA, Chatsworth,
CA; Watervliet Arsenal, Watervliet, NY